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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/815,678	03/23/2001	Woo Sik Yoo	M-9087 US	5755

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EXAMINER

DONG, DALEI

ART UNIT	PAPER NUMBER
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2875

DATE MAILED: 05/15/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/815,678

Applicant(s)

YOO, WOO SIK

Examiner

Dalei Dong

Art Unit

2875

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 23 March 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) 23-32 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-22 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 23 March 2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ 6) ☐ Other: _____

DETAILED ACTION

Election/Restrictions

1. Claims 23-32 are withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected a multi-spectral light source, there being no allowable generic or linking claim. Applicant timely traversed the restriction (election) requirement in Paper No. 09/877,322. The criteria for establishment of restriction is if it can be shown that the product can be made by an entirely different method as claimed by applicant. As shown the light source can be manufactured by a different process of U.S. Patent No. 5,384,709 to Seder as is also classified under different class and subclass and thus provides undue burden to the Examiner.

Because the method of making and the product of a multi-spectral light source are distinct inventions as acquired a separate status in the art as shown by their different classification, restriction for examination purposes as indicated is proper.

Drawings

2. New corrected drawings are required in this application because the drawings are informal. Applicant is advised to employ the services of a competent patent draftsman outside the Office, as the U.S. Patent and Trademark Office no longer prepares new drawings. The corrected drawings are required in reply to the Office action to avoid abandonment of the application. The requirement for corrected drawings will not be held in abeyance.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 3,529,208 to Frungel.

Regarding to claims 1-5, 13-14 and 22, Frungel discloses in Figure 1, "The lamps 1a to 1d are associated with reflectors 6a, 6b, 6c and 6d. As indicated there may thus be obtained an elongated scope of lighting in the lighting fields 7a, 7b, 7c and 7d. Thus it is possible for instance to illuminate a row of houses in a uniform manner for the purposes of a wide-angle shot. In accordance with the teachings of the invention the lamps 1a and 1d are provided with a different composition of discharge gas and a different pressure for the gas from the composition and pressure used in the lamps 1b and 1c. For this purpose the lamps may be connected with their inlets or other gas ducts to adjustable pressurized gas- containers. In the embodiment shown the inlets 8b and 8c are fed by a common conduit 8f and the two inlets 8a and 8b are fed from the conduit 8e" (column 2, line 29-43).

Frungel also discloses in Figure 1, "in order to modify the gas contents of the lamps 1a, 1b, 1c and 1d a control device 10 is provided which is connected with the two conduits 8e and 8f. The control device 10 is charged from three pressure gas containers

Art Unit: 2875

11, 12 and 13 of which for instance one may contain helium gas, the other krypton and the third argon, all under high pressure. The three pressurized gas containers 11, 12 and 13 are provided in conventional manner with manometers 14, 15, 16 and with valves 17, 18 and 19. The three valves 17, 18 and 19 control three feed ducts 21, 22 and 23 connected to the Control device 10. The ducts lead to pairs of valves 31, 41 and 32, 42 and 33, 43. At the outlet end the valves 31, 32 and 33 are connected in series with the conduit 8e. In corresponding manner there is a connection in series between the three valves 41, 42 and 43 and on the other hand the duct 8f. It is therefore possible to connect the two conduits 8e and 8f by suitable operation of the valves 31, 32, 33, 41, 42, 43 to a source of helium gas, krypton, argon. The amount of gas pressure in the two conduits 8e and 8f can be controlled by means of the manometers 34 and 44. To lower the gas pressure or to evacuate the lamp containers entirely, there are provided two release valves 35 and 45" (column 2, line 44-66).

Frunger further discloses in Figure 1, "the gas pressure in the discharge space can for instance be varied as follows. After first draining the gas from a previous operation, the valves 35 and 45 are closed. If it is intended to fill the lamps 1a and 1d with, for instance, high pressure helium gas and the lamps 1b and 1c with high pressure krypton, one proceeds as follows: Only the valve 31 of the series of valves 31, 32, 33, 41, 42 and 43 is opened. Thus helium under pressure can enter the conduit 8e from the pressurized gas container 11. Upon reaching the required pressure, which is controlled by the 5 manometer 34, the valve 31 is closed again. It is also possible to make a correction in case the gas pressure has risen to too high a level by opening the release valve 35. The

valve 42 is then opened to fill the discharge lamps 1b and 1c with krypton under pressure. The krypton gas 10 can thus enter into conduit 8f from the pressure container 12. The gas pressure in this case is controlled by the manometer 44. Upon reaching of the desired pressure, the valve 42 is again closed. More precise adjustment of the pressure is possible also in this case by means of 15 the release valve 45” (column 2, line 67 to column 3, line 15).

Frungel further yet discloses in Figure 1, “this type of operation permits to give the emission of the lamps 1a and 1d a more reddish shading and accordingly to cause a better illumination of certain parts of the object since reddish light has a greater penetration 20 through any kind of haze. A filling of the lamps 1b and 1c on the other hand with krypton will result in a more, white illumination similar to the use of xenon. In the same manner it is possible to use argon which can be admitted by means of valves 33 and 43 from gas container 13” (column 3, line 16-25).

Frungel further yet discloses in Figure 1, “it is also possible to fill up all lamps with the same type of gas by simultaneous opening of the valve pairs 31, 41 and 32, 42, and 33, 43. It is furthermore possible to vary the pressures in the two conduits 8e and 8f by manipulation of the two valves of each pair of valves. Thus 30 a variation of the light intensity will result in spite of the fact that all of the lamps 1a, 1b, 1c and 1d are connected to the same discharge current” (column 3, line 26-33).

Frungel discloses the claimed invention except that a second valve associated with the second end instead of a second valve (release valve 35 and 45) associated with the middle of the lamp. Frungel shows that the second valve placed at the second end is

Art Unit: 2875

an equivalent structure and performs the equivalent function known in the art. Therefore, because these two different placement of second valves were art-recognized equivalent at the time the invention was made, it would have been obvious to one of ordinary skill in the art to have placed the second valve at the second end of the lamp in order to accommodate the design specification.

Regarding to claims 6-12 and 15-21, Frungel discloses the claimed invention except for various shapes claimed in the claims. It is old and well known in the art to shape the lamp into different shapes in order to accommodate the design specification. Further, Applicant does not establishes the criticality of the shape of the lamp to the invention and hence, the different shape of the lamp can be determined by routine experimentation by one having ordinary skill in the art. Furthermore, it has been held that to be entitled to weight in method claims the recited-structure limitations therein must affect the method in a manipulative sense, and not to amount to the mere claiming of a sue of a particular structure. *Ex Parte Pfeiffer*, 1962 C.C. 408 (1961).

Conclusion

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

The following prior art are cited to further show the state of the art of a method of exchanging gases in a light source.

U.S. Patent No. 3,701,368 to Stern.

Art Unit: 2875

U.S. Patent No. 4,303,290 to Tsunekawa.

U.S. Patent No. 4,364,617 to Moriwaki.

U.S. Patent No. 4,578,043 to Teshima.

U.S. Patent No. 5,213,537 to Roberts.

U.S. Patent No. 5,384,709 to Seder.

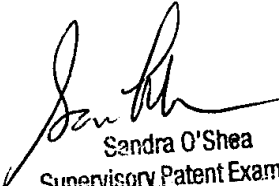
U.S. Patent No. 5,496,201 to Hwang.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dalei Dong whose telephone number is (703)308-2870. The examiner can normally be reached on 8 A.M. to 5 P.M..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sandra O'Shea can be reached on (703)305-4939. The fax phone numbers for the organization where this application or proceeding is assigned are (703)872-9318 for regular communications and (703)872-9319 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703)308-0956.

D.D.
May 13, 2003


Sandra O'Shea
Supervisory Patent Examiner
Technology Center 2800